

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings of claims in the application:

**Listing of Claims:**

1-2. (Canceled)

3. (Withdrawn) An information network system comprising:

a plurality of computer systems;

a communication network, to which at least some of said computer systems are communicatively coupled;

a functionally coherent and physically distributed cache memory comprising a plurality of memory portions each within a memory of a computer system among a first set of said computer systems; and

a functionally coherent and physically distributed data storage device comprising a plurality of data storage portions each within a data storage device of a computer system among said first set of computer systems, at least one of said computer systems being configured to perform data I/O with said functionally coherent and distributed data storage device.

4. (Withdrawn) The system of claim 3 wherein said functionally coherent

and physically distributed cache memory is operable as data cache for I/O operations with said

functionally coherent and physically distributed data storage device.

5. (Withdrawn) The system of claim 3 wherein said first set of computer

systems comprises all of said computer systems.

6. (Withdrawn) The system of claim 3 wherein said first set of computer

systems comprises a subset of said computer systems.

1                   7.       (Withdrawn) The system of claim 6 wherein another computer system,  
2 not belonging to said first set of computer systems, can access said functionally coherent and  
3 physically distributed data storage device.

1                   8.       (Withdrawn) The system of claim 3 wherein said functionally coherent  
2 and physically distributed data storage device is configured as a functionally coherent and  
3 physically distributed RAID storage device.

1                   9.       (Withdrawn) The system of claim 3 wherein said memory portions are  
2 portions of volatile random access memories of said first set of computer systems.

1                   10.      (Withdrawn) An information network comprising:  
2                   a first set of computer systems each having means for organizing a portion of its  
3 memory as a unified multiple-computer system cache memory; and  
4                   a second set of computer systems each having means for organizing a portion of  
5 its data storage as a unified multiple-computer-system data storage device accessible to at least  
6 some of said information network to perform I/O.

1                   11.      (Withdrawn) The system of claim 10 wherein said unified multiple-  
2 computer system cache memory comprises a portion of memory from each of said computer  
3 systems and said unified data storage device comprises a portion of data storage of a data storage  
4 device of at least one of said computer systems.

1                   12.      (Withdrawn) The system of claim 10 wherein said unified data storage  
2 device is configured to be accessible to at least one computer system not belonging to said  
3 second set.

1                   13.      (Withdrawn) The system of claim 10 wherein said unified data storage  
2 device is configured as a distributed RAID storage device.

1                   14.   (Withdrawn) The system of claim 10 wherein said portions of memory  
2 are portions of volatile random access memories of said first set of computer systems.

1                   15.   (Withdrawn) A method for operating an information network comprising:  
2                   organizing into a unified data storage device at least one data storage portion from  
3 each of a first plurality of computer systems of said network; and  
4                   performing data I/O access to the unified data storage device using a distributed  
5 cache memory that includes at least one memory portion from each of a second plurality of  
6 computer systems of said information network.

1                   16.   (Withdrawn) The method of claim 15 further comprising defining all  
2 computer systems in said information network as said second plurality.

1                   17.   (Withdrawn) The method of claim 15 further comprising defining said  
2 second plurality as a subset of said information network.

1                   18.   (Withdrawn) The method of claim 17 further comprising accessing said  
2 unified data storage device with at least one computer system that is not one of said first  
3 plurality.

1                   19.   (Withdrawn) The method of claim 15 further comprising configuring said  
2 distributed data storage device as a distributed RAID storage device.

1                   20.   (Withdrawn) The method of claim 15 in which volatile memories are  
2 configured as at least some of the memory portions.

1                   21.   (Withdrawn) The method of claim 15 further comprising defining said  
2 first plurality as a subset of said information network.

1           22.     (Withdrawn) An information network system comprising:  
2                   a plurality of computer systems;  
3                   a communication network, to which at least some of said computer systems are  
4     communicatively coupled;  
5                   a distributed cache memory comprising a plurality of memory portions, each  
6     memory portion being a portion of a memory of a computer system among a subset of said  
7     computer systems, said memory portions being organized to function as a single coherent cache  
8     memory; and  
9                   a distributed data storage device comprising a plurality of data storage portions,  
10    each data storage portion being a portion of storage of one or more data storage devices of a  
11    computer system among said subset of computer systems, said data storage portions being  
12    organized to function as a single data storage device, wherein said computer systems can  
13    perform data I/O with said distributed data storage device and wherein said distributed cache  
14    memory is operable as a cache memory for said distributed data storage device.

1           23.     (Withdrawn) An information network comprising:  
2                   a plurality of computer systems;  
3                   each computer system among at least a first subset of said computer systems  
4     having first means for performing distributed caching, wherein each first means provides a  
5     portion of memory from its corresponding computer system, wherein all of said first means  
6     cooperate to provide a unified system cache memory from among said portions of memory; and  
7                   each computer system among said first subset further having second means for  
8     performing distributed data storage, wherein each second means provides a portion of data  
9     storage of a data storage device from its corresponding computer system, wherein all of said  
10    second means cooperate to provide a single data storage device, wherein said computer systems  
11    access said single data storage device to perform I/O.

1                   24.   (Withdrawn) A method for an information network comprising a plurality  
2 of computer systems, the method comprising:  
3                   each computer system among a first set of said computer systems providing a  
4 portion of its RAM memory, collectively referred to as a plurality of memory portions;  
5                   organizing said memory portions into a unified cache memory;  
6                   each computer system among said first set of computer systems providing a  
7 portion or portions of one or more its data storage devices, collectively referred to as a plurality  
8 of data storage portions; and  
9                   organizing said data storage portions into a single data storage device; and  
10                  providing data I/O access to said single data storage device, wherein any of said  
11 plurality of computer systems can access said single data storage device.

1                   25.   (Previously presented) An information backup system comprising:  
2                   a plurality of computer systems;  
3                   a communication network, to which at least some of said computer systems are  
4 communicatively coupled;  
5                   a functionally coherent and physically distributed cache memory comprising a  
6 plurality of memory portions each within a memory of a computer system among a first set of  
7 said computer systems; and  
8                   a functionally coherent and physically distributed data storage device comprising  
9 a plurality of data storage portions each within a data storage device of a computer system  
10 among said first set of computer systems, at least one of said computer systems being configured  
11 to perform data I/O with said functionally coherent and distributed data storage device.

1                   26.   (Previously presented) The system of claim 25 wherein said functionally  
2 coherent and physically distributed cache memory is operable as data cache for I/O operations  
3 with said functionally coherent and physically distributed data storage device.

1                   27.   (Previously presented) The system of claim 25 wherein said first set of  
2 computer systems comprises all of said computer systems.

1                   28.   (Previously presented) The system of claim 25 wherein said first set of  
2 computer systems comprises a subset of said computer systems.

1                   29.   (Previously presented) The system of claim 28 wherein another computer  
2 system, not belonging to said first set of computer systems, can access said functionally coherent  
3 and physically distributed data storage device.

1                   30.   (Previously presented) The system of claim 25 wherein said functionally  
2 coherent and physically distributed data storage device is configured as a functionally coherent  
3 and physically distributed RAID storage device.

1                   31.   (Previously presented) The system of claim 25 wherein said memory  
2 portions are portions of volatile random access memories of said first set of computer systems.

1                   32.   (Previously presented) An information backup system comprising:  
2                   a first set of computer systems each having means for organizing a portion of its  
3 memory as a unified multiple-computer system cache memory; and  
4                   a second set of computer systems each having means for organizing a portion of  
5 its data storage as a unified multiple-computer-system data storage device accessible to at least  
6 some of said information network to perform I/O.

1                   33.   (Previously presented) The system of claim 32 wherein said unified  
2 multiple-computer system cache memory comprises a portion of memory from each of said  
3 computer systems and said unified data storage device comprises a portion of data storage of a  
4 data storage device of at least one of said computer systems.

1                   34.   (Previously presented) The system of claim 32 wherein said unified data  
2 storage device is configured to be accessible to at least one computer system not belonging to  
3 said second set.

1                   35.   (Previously presented) The system of claim 32 wherein said unified data  
2 storage device is configured as a distributed RAID storage device.

1                   36.   (Previously presented) The system of claim 32 wherein said portions of  
2 memory are portions of volatile random access memories of said first set of computer systems.

1                   37.   (Previously presented) A method for operating an information backup  
2 system comprising:  
3                   organizing into a unified data storage device at least one data storage portion from  
4 each of a first plurality of computer systems of said network; and  
5                   performing data I/O access to the unified data storage device using a distributed  
6 cache memory that includes at least one memory portion from each of a second plurality of  
7 computer systems of said information network.

1                   38.   (Previously presented) The method of claim 37 further comprising  
2 defining all computer systems in said information network as said second plurality.

1                   39.   (Previously presented) The method of claim 37 further comprising  
2 defining said second plurality as a subset of said information network.

1                   40.   (Previously presented) The method of claim 39 further comprising  
2 accessing said unified data storage device with at least one computer system that is not one of  
3 said first plurality.

1                   41.   (Previously presented) The method of claim 37 further comprising  
2 configuring said distributed data storage device as a distributed RAID storage device.

1                   42.   (Previously presented) The method of claim 37 in which volatile  
2 memories are configured as at least some of the memory portions.

1                   43.   (Previously presented) The method of claim 37 further comprising  
2 defining said first plurality as a subset of said information network.

1                   44.   (Previously presented) An information backup system comprising:  
2 a plurality of computer systems;  
3 a communication network, to which at least some of said computer systems are  
4 communicatively coupled;  
5 a distributed cache memory comprising a plurality of memory portions, each  
6 memory portion being a portion of a memory of a computer system among a subset of said  
7 computer systems, said memory portions being organized to function as a single coherent cache  
8 memory; and  
9 a distributed data storage device comprising a plurality of data storage portions,  
10 each data storage portion being a portion of storage of one or more data storage devices of a  
11 computer system among said subset of computer systems, said data storage portions being  
12 organized to function as a single data storage device, wherein said computer systems can  
13 perform data I/O with said distributed data storage device and wherein said distributed cache  
14 memory is operable as a cache memory for said distributed data storage device.

1                   45.   (Previously presented) An information backup system comprising:  
2 a plurality of computer systems;  
3 each computer system among at least a first subset of said computer systems  
4 having first means for performing distributed caching, wherein each first means provides a  
5 portion of memory from its corresponding computer system, wherein all of said first means  
6 cooperate to provide a unified system cache memory from among said portions of memory; and  
7 each computer system among said first subset further having second means for  
8 performing distributed data storage, wherein each second means provides a portion of data



9 storage of a data storage device from its corresponding computer system, wherein all of said  
10 second means cooperate to provide a single data storage device, wherein said computer systems  
11 access said single data storage device to perform I/O.

1 46. (Previously presented) A method for an information backup system  
2 comprising a plurality of computer systems, the method comprising:  
3 each computer system among a first set of said computer systems providing a  
4 portion of its RAM memory, collectively referred to as a plurality of memory portions;  
5 organizing said memory portions into a unified cache memory;  
6 each computer system among said first set of computer systems providing a  
7 portion or portions of one or more its data storage devices, collectively referred to as a plurality  
8 of data storage portions; and  
9 organizing said data storage portions into a single data storage device; and  
10 providing data I/O access to said single data storage device, wherein any of said  
11 plurality of computer systems can access said single data storage device.